

## **SURGICAL STAPLING INSTRUMENT HAVING ARTICULATION JOINT SUPPORT PLATES FOR SUPPORTING A FIRING BAR**

### **Abstract of the Invention**

A surgical stapling and severing instrument particularly suited to endoscopic articulates an end effector by having a geared articulation mechanism that converts rotational motion from a handle portion. A firing bar longitudinally translates between the handle portion and the end effector. The firing bar head is thickened in order to present an undistorted cutting edge and engagement features to the opposing jaws of the end effector. The firing bar also advantageously includes a thinned or tapered proximal portion in the form of a strip or band that negotiates the articulation mechanism flexibility. To prevent buckling of the firing bar strip during firing, a pair of support plates adjustably flank the firing bar strip through the articulation mechanism. Various versions show resilient and spring engagement of each end of the support plate to distal and proximal sides of the articulation mechanism, as well as a resilient support plate.